



# 3DK10



## NPN Silicon High Frequency Middle Power Transistor

### Features:

1. Using epitaxy planar technology structure. High working frequency. Metallic packaging.
2. Small volume, light weight, easy installation.
3. Use for high frequency oscillation, high frequency small signal amplification circuit.
4. Quality Class: GS, G. Implementation of standards: QZJ840611

### TECHNICAL DATA:

( $T_a = 25^\circ\text{C}$ )

Parameter name	Symbols	Unit	Specifications							Test Condition
			A	B	C	D	E	F	G	
Total Dissipation	$P_{tot}$	mW	1500							$T_a=25^\circ\text{C}$
Max. Collector Current	$I_{CM}$	mA	1000							
Junction Temperature	$T_{jm}$	$^\circ\text{C}$	175							
Storage Temperature	$T_{stg}$	$^\circ\text{C}$	-55~+175							
C-B Breakdown Voltage	$V_{(BR)CBO}$	V	25	40	60	75	100	75	60	$I_c=0.1\text{mA}$
C-E Breakdown Voltage	$V_{(BR)CEO}$	V	20	30	45	60	80	60	40	
E-B Breakdown Voltage	$V_{(BR)EBO}$	V	4							$I_E=0.1\text{mA}$
Collector- Emitter Saturation Voltage Drop	$V_{CE(sat)}$	V	0.5							$I_c=600\text{mA}$ , $I_B=60\text{mA}$
Base- Emitter Saturation Voltage Drop	$V_{BE(sat)}$	V	1.2							
C-E Leakage Current	$I_{CEO}$	$\mu\text{A}$	10				3			$V_{CE}=15\text{V}$
E-B Leakage Current	$I_{EBO}$	$\mu\text{A}$	1.0							$V_{EB}=1.5\text{V}$
DC Current Gain	$h_{FE}$		Orange: 25~40, Yellow: 40~55, Green: 55~80 Blue: 80~120, Purple: 120~180							$V_{CE}=2\text{V}$ , $I_c=60\text{mA}$
Transition frequency	$f_T$	MHz	150							$V_{CE}=10\text{V}$ , $I_c=150\text{mA}$ $f=30\text{MHz}$
Turn-on Time	$t_{on}$	ns	30							$I_c=300\text{mA}$ $I_{B1}= I_{B2}=30\text{mA}$
Storage Time	$t_s$	ns	270							
Fall Time	$t_f$	ns	30							

### Outline and Dimensions: